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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,793	02/03/2004	Masahiro Inoue	Q79163	9251

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EXAMINER	
PHU, SANH D	

ART UNIT	PAPER NUMBER
2618	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/769,793	INOUE, MASAHIRO	
	Examiner	Art Unit	
	Sanh D. Phu	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,9-11 and 15-17* is/are rejected.

7)☒ Claim(s) *2-8 and 12-14* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is responsive to the Amendment file don 9/19/07. Accordingly, claims 1-17 are currently pending.

Claim Objections

2. Claim 11 is objected to because of the following informalities:

Claim 11, line 3, recites the limitation "said electrically conductive members". The limitation is lack of antecedent basis. The limitation is suggested to be changed to --said electrically conductive member-- for referring to "electrically conductive member" previously recited in claim 9.

Claim 11, lines 3-4, recites the limitation "said inner peripheral surfaces". The limitation is lack of antecedent basis. The limitation is suggested to be changed to -- said inner peripheral surface-- for referring to "inner peripheral surface" previously recited in claim 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 9-11 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaum et al (5,485,520), previously cited, in view of Gelvin et al (7,020,701), newly-cited.

-Regarding claim 1, Chaum et al discloses a dedicated short-range communication on-vehicle apparatus (34) (see figure 1) mounted on a motor vehicle in a dedicated short-range communication system for an intelligent traffic system, comprising:

an antenna (300) (see figure 3) being a fixed microstrip antenna array having, therefore, a fixed directivity in a predetermined direction for supporting a communication link (22) (see figure 1) (see col. 7, lines 1-7, col. 12, lines 8-20) ;

a radio module (302) (see figure 3) for performing transmission/reception of radio wave with road-side radio equipment (20b) (see figure 1) by way of said antenna (see col. 12, lines 8-57);

a data processing unit (comprising (312, 310, 308)) for processing transmission/reception data transmitted/received by said radio module (see col. 12, lines 8-57); and

a box-like housing (see figure 3A) for housing therein said antenna, said radio module and said data processing unit in a unitary structure (see col. 12, lines 58-59).

Chaum et al does not teach that said box-like housing is adapted to be fixedly attached onto a windshield of the motor vehicle with a mounting plate being disposed on the radiation side of said antenna by means of an adhesive member, and wherein at least a radio wave aperture portion of said mounting plate is made of a radio wave transmissible material, as claimed.

However, Chaum et al teaches that said box-like housing is adapted to be fixedly attached onto a windshield of the motor vehicle being disposed on the radiation side of said antenna by means of an adhesive member (e.g., Velcro), so that radio signals can be transmitted/received from/to the antenna through the surface of said housing, fixedly attached onto the windshield by

means of the adhesive member, to/from the road-side radio equipment (see figure 1, col. 12, lines 8-24).

Gelvin et al teaches that an adhesive layer (4312) made of a radio wave transmissible material, which includes Velcro, for mounting and attaching a rf communication device to another object (see figure 43, col. 47, lines 34-50, col. 20, lines 20-67).

Since Chaum et al does not teach in detail how said box-like housing is adapted to be fixedly attached onto a windshield of the motor vehicle by means of an adhesive member (e.g., Velcro), it would have been obvious for one skilled in the art , within his skills, to implement Chaum et al in such a way that said box-like housing is adapted to be fixedly attached onto the windshield of the motor vehicle with an adhesive mounting layer, as taught by Gelvin et al, (the layer considered here equivalent with the limitation "mounting plate"), being disposed on the radiation side of said antenna by means of an adhesive member "Velcro", and wherein at least a radio wave aperture portion of said mounting layer is made of the radio wave transmissible material so that radio signals can be transmitted/received from/to the antenna through the

mounting layer and the surface of said housing, fixedly attached onto the windshield by the mounting layer, to/from the road-side radio equipment, as required.

-Regarding to claim 9, Chaum et al discloses that the circuitry (shown in figure 3) being an electrically conductive member of the apparatus comprises a display (318) and keypad (316) (see figure 3A, col. 12, lines 58-62) appeared on an outer side of a peripheral surface of said box-like housing (see figure 3A), the display and keypad inherently having an electrically conductive portion is disposed on an inner side of said peripheral surface of said box-like housing, and the electrically conductive member inherently has a region for the antenna (300) (see figures 3 and 3A) corresponding to orientation of directivity of said antenna disposed internally of said box-like housing.

-Regarding to claim 11, as applied to claim 9, Chaum et al teaches that said electrically conductive member has the display and keypad comprising a region disposed on said inner peripheral surfaces of said box-like housing at a side of the housing located oppositely to an outer peripheral portions of a

surface disposed internally of said box-like housing at an opposite side of the housing.

-Regarding to claim 17, as applied to claim 9, Chaum et al teaches that said electrically conductive has the display and the keypad comprising the electrically conductive portion disposed on a surface side of the inner of said peripheral surface of said box-like housing.

-Regarding to claim 10, Chaum et al in view of Gelvin et al does not teach said electrically conductive member has the display and keypad is disposed on an inner peripheral surface located oppositely to the orientation directivity of said antenna disposed internally of said box-like housing, as claimed.

However, Chaum et al teaches that said antenna is disposed internally of said box-like housing (see figure 3A); and Chaum et al further teaches that the directivity of the antenna can be designed in a certain direction (see col. 12, lines 14-16).

It would have been obvious for a person skilled in the art, within his skills, to implement the antenna, in Chaum et al invention in view of Gelvin et

al, to have the directivity toward the roadside radio equipment for optimally supporting the communication link (22) (see figure 1).

With such the implementation, Chaum et al in view of Gelvin et al teaches said electrically conductive member has the display and keypad is disposed on an inner peripheral surface located oppositely to the orientation directivity of said antenna disposed internally of said box-like housing.

-Regarding to claim 15, Chaum et al in view of Gelvin et al does not teach that said adhesive member is constituted by a double-side adhesive tape shaped in a predetermined character pattern.

However, Chaum et al teaches that said adhesive member can be any type as long as the housing cah be fixedly attached onto the windshield so as to provide unimpeded microwave communication with the road side radio equipment (see col. 12, lines 20-24).

Gelvin et al teaches that as shown in figure 43, the adhesive layer (4312) can be shaped in a predetermined character pattern for being fitted in contact with a surface of the rf communication device so that the layer can attach to

said surface of the rf communication device on one side of the layer, and attach to the other object on the other side.

It would have been obvious for one skilled in the art to implement Chaum et al in view of Gelvin et al in such a way that said adhesive member would be constituted by the adhesive layer shaped in a predetermined character pattern for being fitted in contact with the back surface of the apparatus (34) (see figure 3A), as taught by Gelvin et al, so that the layer can attach to said surface of the apparatus on one side of the layer, and attach to the windshield of the motor vehicle on the other side, as required. With such the implementation, of the Chaum et al invention in view of Gelvin et al, the adhesive layer can be considered here equivalent with the limitation "double-side adhesive tape shaped in a predetermined character pattern").

-Regarding to claim 16, as applied to claim 15, in Chaum et al, the adhesive layer, as a physical substance, inherently has a certain color.

Allowable Subject Matter

5. Claims 2-8 and 12-14 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed on 9/19/07 have been fully considered but they are not, in part, persuasive.

-As results, claims 2-8 and 12-14 are indicated allowable as set forth above.

-With respect to claims 1, 9-11 and 15-17, the applicant argues that Chaum et al does not teach an IVU that comprises a box-like housing for housing therein the antenna, the radio module and the data processing unit is in a unitary structure.

The examiner respectfully disagrees. Chaum et al teaches that the IVU (34) comprises a housing for housing therein the antenna, the radio module and the data processing unit is in a unitary structure (see col. 12, lines 58-59). The housing considered here equivalent with the limitation "box-like housing"

because as shown in figure 3B, the housing has two rectangle-like front and back surfaces and a height so that the housing can accommodate the antenna, the radio module, the data processing unit and the insertion of card (36). Note that the rejections are based on limitations recited in the claims. The claims do not have other limitations for further define "box-like housing" in order to make it distinguishable from Chaum et al housing.

-Other applicant's arguments with respect to claims 1, 9-11 and 15-17 are persuasive. However, the claims are deemed not allowable because of reasons set forth in this Office Action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D. Phu whose telephone number is (571)272-7857. The examiner can normally be reached on M-Fr from 8:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on (571) 272-

4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sanh D Phu
Primary Examiner
Art Unit 2618
10/21/07

SP